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GEOGRAPHIC SCHOOL BULLETINS

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

(The National Geographic Society is a scientific and educational Society, wholly altruistic, incorporated as a non-commercial institution for the increase of geographic knowledge and its popular diffusion. General Headquarters, Washington, D. C.)

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NOTE TO TEACHERS: Because of the Easter recess, there will be no GEOGRAPHIC SCHOOL BULLETINS on April 26. The BULLETINS will be resumed on Monday, May 3.

David Duncan from C.O.I.A.A.

IN HONDURAS, THE NATION'S PAST INSPIRES ITS FUTURE ARTISTS

In art classes, students decorate bowls with designs based on the Maya art of the nation's most famous ghost city and include the city's name—Copan (right foreground). Figures of priests and rulers in elaborate feathery costumes adorned stone columns around Copan's spacious courtyards. One such court might have held 30,000 people. In stone-paved ball courts athletes played a game like soccer with a rubber ball, before spectators in stone "bleachers." Acres of that ancient Maya metropolis, now in ruins some 80 miles northwest of Tegucigalpa, are among the tourist attractions of Honduras (Bulletin No. 2).

HOW TEACHERS MAY OBTAIN THE BULLETINS

The Geographic School Bulletins are published weekly throughout the school year (thirty issues) and will be mailed to teachers in the United States and its possessions for one year upon receipt of 25 cents (stamps or money order); in Canada, 50 cents. Entered as second-class matter, Jan. 27, 1922, Post Office, Washington, D. C., under act of March 3, 1879. Acceptance for mailing at special rate of postage provided in section 1103, Act of Oct. 3, 1917, authorized Feb. 9, 1922. Copyright 1943, by National Geographic Society, Washington, D. C. International copyright secured. All rights reserved. Quedan reservados todos los derechos.

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General Headquarters, Washington, D. C.

Kairouan the Holy Caught in Battle for Tunisia

AMERICAN troops and their British allies, in a flank attack against Nazi forces in Tunisia, carry war to the doorstep of Kairouan the Saintly in that city's saintliest month, April.

Normally, in April when winter rains cease, Moslem pilgrims crowd into Kairouan to worship at the 90 mosques and prayer places in the holiest city of Moslem Africa. It ranks second only to Mecca among Mohammed's followers, seven pilgrimages to Kairouan being equal to one trip to Mecca.

The ancient walled city stands on the dry coastal plain of Tunisia, 80 miles south of Tunis and 35 miles inland from the port of Sousse. The desolate semi-desert spot was considered an advantage by Arab pioneers who selected it as the site of their capital about 670 A.D. during their conquest of North Africa. Knowing how to live and fight in the desert, there they could feel both at home and safe from attack by sea. They had no navy or naval experience.

Unbelievers May Enter Mosques

The city's name (spelled also Qairouan) comes from the same stem as "caravan" because Sidi Okba ibn Nafi—leader of the conquering Arabs—chose the site as the permanent resting place of his caravan.

Virtually wiped out several times by other Moslem conquerors, and rebuilt, Kairouan remained until less than a century ago the African Moslems' religious headquarters. Entrance was forbidden to Christians and Jews except by special dispensation. On the French occupation of Tunisia in 1881, however, troops were quartered in the Great Mosque. Since then unbelievers have been admitted to the city and mosques. Nowhere else in Tunisia are mosques open to visitors.

The present Great Mosque is the fifth built on a site chosen by Sidi Okba. The Mosque of the Barber, the Mosque of the Sabers, and the Mosque of the Three Doors possess impressive carvings and relics. Legend proclaims that the Mosque of the Barber is built over the tomb of a close friend of Mohammed who carried to his grave a treasure: three hairs from the beard of the Prophet.

The holiness of the city has been so highly esteemed that many North African Moslems brought their dead to be buried in Kairouan cemeteries.

Famed for Rugs as Well as Religion

The city's rug business as well as its sanctity attracts visitors. April was the festive month because thousands of visitors came to examine the output of native weavers at the annual Rug Fair. Fostered by the French, prizes were awarded to the best weavers. Best known types of Kairouan carpets are the gay, thick Zerbia, the rough wool Alloucha, and the embroidered Mergoum. Certificates of origin are rug "pedigrees" cherished by careful buyers.

The combination of religious pilgrimages and the Rug Fair gave Kairouan much of the character of American county fairs. Jugglers and snake charmers lured the tourist's dollar. Competitive exhibitions of horsemanship featured the daring riding of Zlass tribesmen (illustration, next page).

Note: Kairouan is shown on the National Geographic Society's Map of Central Europe and the Mediterranean.

For additional information, see these articles in the *National Geographic Magazine*: "Eastward from Gibraltar," January, 1943; and "Time's Footprints in Tunisian Sands," March, 1937.

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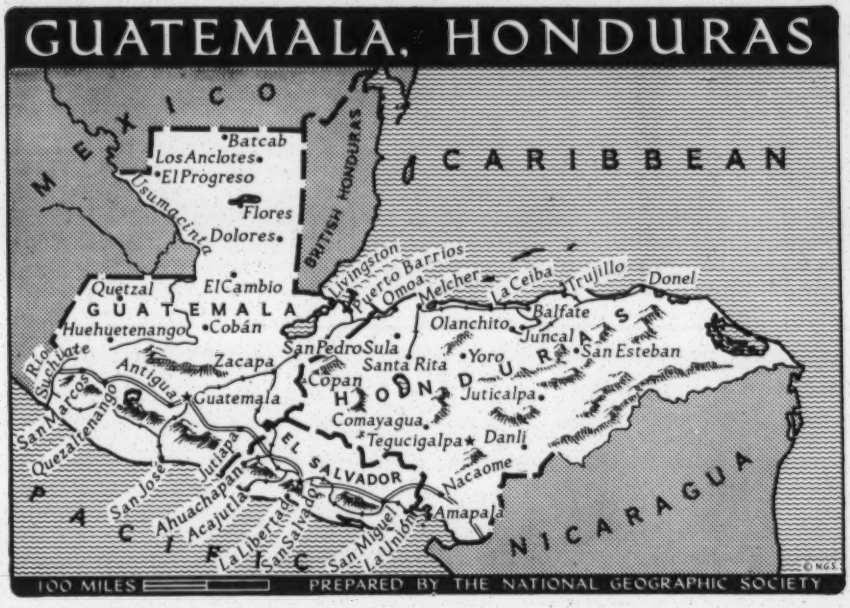

GREAT WINGSPREAD MAKES HONDURAS ONE OF THE LARGER CENTRAL AMERICAN NATIONS

Among the Central American sisterhood of nations, Honduras, with 45,000 square miles, ranks in area after Nicaragua and Guatemala. Small El Salvador next door, however, as well as the larger nations, surpasses it in number of inhabitants.

The Republic of Honduras has no boundary in common with the British colony of the same name.

The broad wingspread of north coastlands along the Caribbean is the chief Honduran banana belt, with San Pedro Sula as its commercial center and a railway system to speed the perishable fruit to its seaports. Although banana culture on a commercial scale was first developed in Costa Rica, this stretch of Honduras came to supply a large portion of the fruit exported to the United States before the war. The "banana capital," San Pedro Sula, was founded in 1536 by Pedro de Alvarado and has grown to be the nation's second-largest city (about 21,000 people).

Lake Yojoa is the large body of water, 25 miles long, cupped in the western mountains.

The capital and chief city, Tegucigalpa, stands in the southern mountains, without railway connection with the outside world. The Choluteca River, flowing past the city, links it with the port of Amapala on its coastal island beside the Pacific.

Smaller towns of importance in the republic are Comayagua to the northwest of Tegucigalpa, the former capital; Danli, the gold-mining town in the southeast; and Juticalpa, a farming center in the central mountains. Comayagua, occupied by Spaniards as early as 1523, had a university in the 17th century.

The Bay Islands strung along the north coast of Honduras, beyond the ports of La Ceiba and Trujillo, were sighted by Columbus. Once English territory, they are still inhabited by English-speaking Hondurans of British ancestry.

In the mountains northeast of Tegucigalpa is the famous Rosario Mine, whose great output of both gold and silver makes it the largest in Honduras if not in Central America (Bulletin No. 2).

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General Headquarters, Washington, D. C.

Honduras, Number One Banana Land

(This is the eighteenth of a series of bulletins, with maps and illustrations, on the republics of Latin America.)

HONDURAS is about the size of Cuba, but geographically the Central American republic has little else in common with the Caribbean island.

The 45,000-square-mile area of Honduras has roughly the form of a fan, its 350-mile-long northern shore unrolled along the Caribbean Sea, its handle narrowed to a mere 80 miles on the Pacific side. It is a land of spectacular scenery, of mountains reaching more than 10,000 feet, of sharp gorges and lost valleys, of stretches of still untouched forest, and fertile open delta regions.

Honduras has a population of just over a million, the majority of whom live in the highland areas which make up most of the country.

Banana Surpasses Mahogany and Silver in Value

From the northern coast comes the nation's chief money crop, the banana. Honduras is the leading banana country of Central America, although Guatemala in recent years has been increasing production to a point within challenging distance of the lead. Between twelve and thirteen million stems were exported from Honduras in the 1939-40 season. In 1929, a peak year, the figure was 28,000,000.

At present the Honduras banana industry is suffering from war-caused shipping problems. To help stabilize the economy, the United States is cooperating with Honduras in the interest of increased employment in other fields, such as road building, and the development of old and new products, including the fiber plants of abacá and roselle, vegetable oil, and mahogany. In connection with the projects, U. S. engineers, agricultural experts, and health and sanitation technicians have been sent to Honduras.

Although looming economically big, the banana coastlands (scene also of a considerable coconut-raising industry) are only a relatively small part of the varied and vivid land of Honduras. In the fertile valleys and grassy plateaus of the interior, many crops grow well and herds of cattle graze. Besides export products of sugar cane, coffee, and hides, Honduras raises for home consumption such foods as corn, fruits, and vegetables, as well as tobacco and henequen.

Honduras has a wealth of largely undeveloped resources. It has much potential water power from its mountain streams. Its giant mahogany trees are noted for fine quality. In addition to the silver and gold, which in colonial days made this country one of the great treasure vaults of Spain, deposits of copper, iron, lead, zinc, antimony, and petroleum have been reported. Silver and gold, however, are the only minerals so far recovered in quantity. Silver production in 1940 was more than 4,000,000 ounces. The gold output for the same year amounted to nearly 27,000,000 ounces.

Skipped from Oxcart to Plane

Honduras is one of those countries which have skipped the rail and motor eras in leaping from oxcart to airplane transportation. While there are only a little more than 800 miles of railroads and 600 miles of motor roads in the country, there are more than 30 airports. Air service is common for both passengers and freight, including even such heavy articles as mining equipment.

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Maynard Owen Williams

KAIROUAN'S ZLASS RIDERS FURNISH EAST TUNISIA WITH A "WILD WEST" SHOW

The ten-gallon hats of cowboys of the United States would look sadly undernourished by comparison with these enormous off-the-face sombreros, rolled brims backed by waving ostrich plumes, which the Zlass tribesmen of Tunisia wear. Garbed in silk robes of varied colors, and mounted on fiery desert horses whose richly embroidered trappings all but outshine their own, these plainsmen from the Zlass region southwest of Kairouan supply the grand climax of the Rug Fair festivities held annually in peacetime Aprils. The gleaming white scallop-edged tiers of the Great Mosque's minaret (background) serve admiring Moslem women as first and second balcony seats for the spectacular exhibition of horsemanship. Unlike the slender minarets of Asia, that of the Great Mosque is massive in the North African tradition.

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General Headquarters, Washington, D. C.

Basutoland Decrees War Tax to Aid Britain

AMERICAN taxpayers still recovering from their deep-digging income taxes of March 15 will look with interest at tax developments in Basutoland, a vast native "reservation" in South Africa. Having just rounded out 75 years under British protection, the land of the 600,000 Basuto farmer-tribesmen has added a war tax to aid Britain's cause to the various taxes and license fees that keep this area free of national debt.

The new tax was levied by a decree of Basutoland's Madame President, Mantsebo, the paramount chieftainess of the territory's tribes. She is the first woman ruler in the Basutos' history, chosen in January, 1941, by virtue of her career as the chief wife of the late Chief Seeiso Griffith. Her predecessors have ruled their tribal lands under British supervision since 1868, when the advance of Boer farmers into the neighborhood led the native chief, Moshesh, to appeal to the British for protection.

Extra Wives Are Taxable Luxury

Half as large as West Virginia (11,700 square miles), Basutoland is much more mountainous than the American State. It is bounded by the Orange Free State, Natal, and Cape of Good Hope Colony. Though geographically within the Union of South Africa, it is administered not by that government but by a separate British commission responsible also for near-by Swaziland and Bechuanaland.

Basutoland is a territory where white men may not own land. There is no industry of importance other than farming and stock-raising. Much of the agriculture is carried on in Soviet collective-farm style on common land allotted to workers by tribal chiefs.

Basutoland fell short of balancing its budget in 1941 for the first time in many years. But built-up reserves kept the territory safely "in the black." Basutoland taxes every adult male native. The school tax is three shillings. If a man has more than one wife, a state which native custom allows, he must annually pay 25 shillings each on wives Number 2 and Number 3, but wives Number 4 and up are tax-free. Receipts from income tax have tripled since 1936. The 1943 war levy, recognizing different abilities to pay, starts at ten shillings for ordinary mortals and scales up to a hundred shillings for tribal chiefs.

Soil Erosion Is Problem

Indian corn (maize), wheat, and kaffir corn are staple foods raised and eaten by the Basutos. Two million sheep and goats and half a million cattle, herded on steep mountain pastures, contribute wool, leather, and dairy products for export. Overstocking of Basutoland's pasture slopes is largely the cause of soil erosion which is now being fought by terracing and other constructive measures. The planting of special grasses has improved eroded areas.

A plateau land of little timber, high mountains, and densely populated valleys, Basutoland is described by visitors as an African Switzerland. It is not easily approached, having few roads that are more than footpaths, and a single mile of railroad. That mile is the last of sixteen on a spur to the Basutoland capital, Maseru, from the Bloemfontein-Natal branch of the South African Railways.

Crossing the territory from this northwest entrance, the traveler sees first the

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Tegucigalpa, the Honduran capital whose melodious name comes from an Indian phrase translated "hill of silver," has no railroad communication at all. It is, however, linked by regular air service with all the important population centers of the republic. Inland Tegucigalpa also has access by motor road to the Pacific-coast island port of Amapala. Beautifully and healthfully situated at an altitude of more than 3,000 feet, it has been called "the capital in the sky." Its population is about 47,223. The town next in size, San Pedro Sula, has fewer than half as many inhabitants.

The majority of the people in the central highlands of Honduras are of Spanish-Indian stock. Concentrated chiefly along the northern coast, the Negro element in the population was once imported from near-by Caribbean islands to meet labor needs on the banana plantations.

It was near Cape Honduras, about midway along the republic's Caribbean shore, that Columbus made his first landing on the American continent. In Spanish colonial days Honduras, like the rest of Central America, was administered under the Guatemalan Captain Generalcy. After the break with Spain, it was briefly a part of the Mexican Empire. Later it became a member of the Central American Federation, from which it seceded in 1838, declaring itself an independent republic. After the Japanese attack on Pearl Harbor, Honduras joined its neighbors in prompt declarations of war against the Axis.

Note: Honduras is shown on the National Geographic Society's Map of Mexico, Central America, and the West Indies.

For additional information on Honduras, see "Honduran Highlights," in the *National Geographic Magazine*, March, 1942.

Bulletin No. 2, April 19, 1943.

G. M. Strattey

MOCK MEDIEVAL BASTIONS GUARD THE WHITE HOUSE IN TEGUCIGALPA

The crenellated fortifications surrounding the Honduran Presidential Palace, though medieval in appearance, are relatively modern. Tegucigalpa was an old Indian settlement when European explorers reached there; it did not become the capital of Honduras until 1880. It is one of the few capitals in the Western Hemisphere without railroads. Beside the Presidential Palace stands the barracks of the president's guard. Near by are the National University and a teacher-training school for men. Across the Choluteca River from Tegucigalpa is its sister city, Camayagüela; they are governed jointly in spite of their separate names. They lie due south of Chicago.

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Europe Still Leads U. S. in Subways

A NEW underground movement in Europe would mean an ominous conspiracy, no doubt, against Nazi occupation forces. But that underground rumbling in Chicago is just the new subway getting under way.

Pioneer trips over the first completed section at the beginning of this month were sold for the patriotic fare of $18.75 per ride—a Defense Bond serving as a "pass." The city's strap-hangers-to-be got a mole's-eye view of the railway tube built through the clay about 45 feet below the surface.

For years Chicago has had a freight subway under the Loop. This system, serving stores, hotels, and office buildings from beneath, has 3,000 small cars operating on a special narrow-gauge track.

Only Four in U. S., But One Is World-Beater

Chicago's new venture raises to four the number of passenger subway systems operating in the United States. Boston led the way for Americans beneath the surface, starting underground transportation in 1895. Philadelphia and New York City followed.

New York City, although about the sixth metropolis to get a subway started, in 1904, has now worked up to the world's largest system. The sub-surface tracks, if laid in a single line, would reach Charleston, South Carolina. Contrary to popular belief, the United States is behind Europe in the number of cities with subways. While this country has four underground-served cities, Europe has nine.

The first subway system opened in London in 1863, long before construction began in the United States. Glasgow followed in 1886. Budapest, Paris, and Berlin all antedated New York. Madrid and Barcelona took travel underground in Spain.

Many Underground Sections of Surface Lines

Since 1925 the Italian city of Naples has had an underground railway system. Before the war construction was started on a subway for Rome, but it has not yet been put into operation. The ancient "City of Seven Hills" has several underground links where surface travel tunnels through a hill.

Moscow is the latest European capital to undertake a sub-surface system. Each station of the underground there is done in a different architectural style, with different kinds of stone and an abundance of marble. Blending utility with beauty, these stations are reached from street level by photoelectrically controlled escalators. To this sizeable system, in operation since 1935, a new four-mile link was added at the beginning of this year. In spite of the hazards of war the new stations are built of marble and granite and decorated with mosaics.

The Tokyo subway system is a prominent feature of Japan's capital city. The Japanese love of newsreels is expressed in the newsreel theaters built in the subway stations.

A second Japanese subway system is in Osaka, Japan's second-largest city. In contrast to that of Tokyo, which is privately owned, the Osaka subway is operated by the city. It has been in existence for about ten years.

South of the Equator, the only passenger subway system is that of Buenos Aires. There the station walls are decorated with murals of Latin American life.

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grain fields and pastures at levels averaging a mile above the sea. The line rises to snow-capped, two-mile-high peaks of the Drakensberg (illustration below) as the southeast border is approached. Maletsunyane Falls, hidden in wilds that few white men have penetrated, drop 660 feet—four times the plunge of Niagara.

Chief Joined British to Secure Peace

Formed of battle-weary tribes in 1818, the Basuto federation was ably led by Chief Moshesh, who loved peace but found war frequently forced on his people. Late in his life, in 1868, he successfully appealed to Queen Victoria for the British protection that brought substantial peace to the little land. Addressing the Queen, he wrote: "My country is your blanket, O Queen, and my people are the lice in it."

Note: Basutoland is shown on the National Geographic Society's Map of Africa, which was issued as a supplement to the February, 1943, *National Geographic Magazine*.

Bulletin No. 3, April 19, 1943.

Melville Chater

THE PLATEAU'S NAKED EDGE GIVES BASUTOLAND A MOUNTAIN MAGINOT LINE

The area reserved for Basutos stands on the eastern edge of South Africa's central plateau where the mountain rim—there known as the Drakensberg—rises to its highest and barest peaks. On its northeastern frontier stands South Africa's loftiest, the 12,000-foot Giant's Castle. The approach from Natal, on the low coastal plain to the east, requires traveling through such crags as these in ascending to Basutoland's level on the plateau. Mountain fortresses enabled the Basutos to resist all attackers, Zulu, Boer, or British. Their stronghold on the heights of Thaba Bosigo was never captured. So much of their land is mountainous and relatively unproductive that the Basutos cluster in the valleys, forming South Africa's densest native population. Many Basutos, to escape the crowding, move to the Transvaal to work in the mines, although they may not own homes anywhere except in their native reserve.

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Geo-Graphic Brevities

CHIETI, WHERE YANKS ARE IMPRISONED IN ITALY

Mountain vistas, sunny climate, and starchy diet are likely to be the lot of American soldiers captured in Tunisian fighting and transferred to a new prison camp at Chieti, Italy, 100 miles northeast of Rome.

Chieti is surrounded by mountains on all but its east side. Eastward from its 1,100-foot elevation are seven miles of fertile slope to the Adriatic Sea. Thirty miles northwest of Chieti, dim on the horizon, looms the 9,560-foot snow-capped Gran Sasso, highest of the Apennine Mountains. The surrounding region was popular among peacetime vacationists.

A three-mile electric rail branch links Chieti with a main line reaching Rome and other Italian cities.

The city is capital of Chieti Province. Held and developed for centuries by the ancient Greeks, it contains the remains of a Greek theater and large reservoirs. It was capital of the whole scenic and historic Abruzzi region in the days of Norman rule, and was the seat of the religious order of Theatine Monks. Its public art gallery has a fine collection of majolica ware.

In pre-war years Chieti ranked high among Italian centers of macaroni production. At one time more than 200 small, family-operated establishments produced over 3,000 tons of macaroni each year. Wool and silk, violin strings, wax, and oil also are Chieti-made. Wheat is foremost of the several grains that dominate the agriculture of the Chieti region.

* * * * *

ARAKAN FRONT IN BURMA A SLICE OF "NATURE IN THE RAW"

Action on the Arakan front in Burma, southeast of India's border, again has lifted the curtain on one of the most isolated of the world's theaters of war.

This front takes its name from the Arakan Mountains. The ranges, ribbing the country for hundreds of miles in a generally north-south direction, wall off Burma's northern coast, along the Bay of Bengal, from the rest of the country.

The chief city of the Arakan coast is the Japanese-held port of Akyab, about 60 air miles south of the India boundary. This city, captured by the Japanese in a drive toward India in the spring of 1942, was once an important rice-shipping port of some 40,000 inhabitants. Its name means "where the war started."

To the east spreads a region of thickly wooded hills (illustration, next page) and barren mountains; of matted, sun-excluding jungles and open valleys; of sharp gorges cut by tumbling mountain streams. In parts of it, volcanoes spit rocks and flames. Natural gases make small mud volcanoes bubble and spurt.

The land formation of the Arakan front has been likened to the fingers of a man's hand dabbling in the Bay of Bengal. Mountain spurs extend lengthwise to form the fingers, which are separated by the region's four rivers, the Naaf, Mayu, Kaladan, and Lemyo.

Much of the Arakan country was unknown before the war. No railways and few good roads cross it. The coastal lowlands are narrowed by mountain spurs reaching toward the Bay of Bengal. Some of the rocky cliffs drop sheer into the Bay. The warlike native highlanders have stubbornly resisted British authority. Malaria is prevalent in many parts of the lowlands.

North of Akyab is a broad, flat, and fertile delta region built up by the silt of

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A number of cities in all parts of the world have installed underground short cuts through areas of congested traffic for their surface systems. In the United States, Newark, New Jersey, and Rochester, New York, as well as Los Angeles, have completed such traffic facilities. They are merely surface tracks dipping below street levels for a few blocks or somewhat more than a mile.

Crowded cities of Europe have adopted this same underground dodge. Liverpool, England, has such a part-time version of London's complicated tube system. Hamburg, Germany, has an elevated railway that dives beneath the surface for a short stretch of trackage.

Oslo, Norway, Is Smallest Subway City

Athens, Greece, has a similar short cut. In Oslo, Norway, since 1928 there has been a brief three-minute subway interval through the heart of the city for surface travelers. Oslo is the smallest city to have a subway.

In the South Pacific area, Sydney, Australia, has also worked out a subway solution for traffic congestion between the harbor and the railway station.

Washington, D. C., has a "toy" subway which is probably the world's smallest. Operating between the Senate end of the U. S. Capitol Building and the Senate Office Building, a monorail system provides free underground transportation for Senators and sightseers. Not counting this line, Washington remains one of the few big world capitals lacking a subway, outdistanced by London, Budapest, Paris, Berlin, Madrid, Tokyo, Buenos Aires, and Moscow.

Bulletin No. 4, April 19, 1943.

Acme

"ROCKABYE, BABY, 'NEATH THE TREE ROOTS" IN LONDON'S SUBWAY

The oldest subway now is serving the newest use to which underground transportation systems are put—as air raid shelters. The city's war babies are not lulled to sleep in cradles on the treetop, but in hammocks swinging between subway rails, like these in Aldwych Station. During the Battle of Britain the underground was thickly populated—for rapid transit by day and refuge by night. Families took shelter there, scrubbed off their allotted square of cement floor or track, and spread out their bedding night after night. In the first World War also the London "tubes" were shelters. The deep construction of London's system, unlike the more economical shallow construction of most of New York's subways, gives it special value for protection.

the Kaladan River system. This open country was cultivated, particularly for rice.

The best weather in the Arakan country comes during the drier, cooler season between December and February. The rainy season, good for rice production but bad for war operations, is now approaching. At Akyab, the heaviest rainfall comes between June and September, about 165 inches of the average annual total of 197 inches.

Note: The Arakan sector of Burma is shown on the National Geographic Society's Map of Asia and Adjacent Areas, which was issued as a supplement to the *National Geographic Magazine*, December, 1942.

For information on Burma, see "Burma Road, Back Door to China," in the *National Geographic Magazine*, November, 1940*; and "Burma of the Peacocks, India's Eastern Flank," in the GEOGRAPHIC SCHOOL BULLETINS, March 23, 1942.

Bulletin No. 5, April 19, 1943.

A. W. Smith

THESE FOUR-FOOTED TRACTORS MAKE EVERY DAY A CIRCUS DAY IN BURMA

One of the resources of Burma's northern forests is the teak tree, valued as hard timber for ships and furniture. The slow, deliberate strength of the lumbering elephant, a delight of circus crowds, is turned to business use in moving teak from stump to market. Many of them are caught and tamed in the forests where they work, proving intelligent and usually—if well cared for—reliable workers. Their work is to drag the teak logs, fastened by heavy chains, to convenient streams where rising floods in the rainy season will float the timber downstream. Worth up to $3,000, the work elephant wears wood—a wooden bell tinkling with every motion, a wooden dragging saddle padded with layers of bark to prevent galling the animal's hide. If considered surly or dangerous, he is marked with a metal bell whose different sound warns workmen.

NEW SUPPLEMENT TO GEOGRAPHIC INDEX

The 1942-43 Supplement to the Cumulative Index to the *National Geographic Magazine* has now been released and copies are available at 25¢ each. The Cumulative Index covers the years 1899 through 1940 and an accompanying supplement covers 1941. Bound in mulberry cloth with a sturdy envelope pocket on the back cover for the annual Supplement, the Index can be obtained for $1.75.

The Cumulative Index and Supplements greatly increase the reference value of the *Magazine* for teachers and students. The Supplement, by itself, is helpful to teachers who preserve their copies of the *Magazine* for a year or two only.